

AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. Appln. No. 10/501,324

AMENDMENTS TO THE SPECIFICATION

Please replace the paragraph bridging pages 5 and 6 with the following amended paragraph:

~~Claim 1 of the~~ The present invention relates to a pneumatic tire for a motorcycle, ~~comprising~~ including: a tread which has a tread surface portion whose external surface curvature is comparatively large; a pair of zigzag circumferential direction grooves for defining a central continuous circumferential rib which is positioned at a central portion in a tire axial direction of the tread and which extends in a zigzag state continuously in a tire circumferential direction, which extend in a zigzag stage along the tire circumferential direction; and a plurality of pairs of inclining grooves, the inclining grooves being provided in the tire circumferential direction so as to be separated from each other at an interval at both sides in a tire transverse direction of the pair of zigzag circumferential direction grooves and being inclined with respect to the tire transverse direction such that each inclining groove extends from a tread end to a tire equatorial plane and terminates near the zigzag circumferential direction groove without contacting therewith, and an end portion of the inclining groove at a tire equatorial plane side is positioned further to a tire rotational direction side, than an end portion of the inclining groove at a tread end side, characterized in that the inclining groove has a sharp inclining groove portion which is positioned at the tire equatorial plane side, and whose angle with respect to the tire circumferential direction is within a range of 0 to 20 degrees, and a loose inclining groove portion which is positioned at an external side in the tire transverse direction of the sharp inclining groove portion and whose angle with respect to a tire circumferential direction is set larger than the angle of the sharp inclining groove portion, a first longitudinal land portion having a substantially uniform width and a second longitudinal land portion having a width which gradually increases in a direction opposite to the tire rotational direction are alternately

AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. Appln. No. 10/501,324

connected to each other and arranged in the tire circumferential direction between sides forming a zigzag shape of the zigzag circumferential direction groove, due to that a main portion of the sharp inclining groove portion at the tire equatorial plane side is positioned so as to face the side forming a zigzag shape of the zigzag circumferential direction groove, and portions of one sharp inclining groove portion and another sharp inclining groove portion of the inclining grooves adjacent to each other in the tire circumferential direction are made to overlap one another in the tire transverse direction.

Please replace the first full paragraph of page 6 with the following amended paragraph:

Next, operations and effects of the pneumatic tire for a motorcycle ~~according to claim 1~~ will be explained.

Please replace the first full paragraph of page 2 with the following amended paragraph:

~~Claim 2 of the~~The present invention may relate to ~~is the~~ pneumatic tire for a motorcycle ~~according to claim 1, characterized in that~~ in which a tread crown radius at a tire equatorial plane portion as seen from a cross section along a tire rotational axis is equal to or less than 250 mm.

Please replace the first full paragraph of page 2 with the following amended paragraph:

Next, an operation and an effect of the pneumatic tire for such a motorcycle ~~according to claim 2~~ will be explained.

Please replace the paragraph bridging pages 9 and 10 with the following amended paragraph:

~~Claim 3 of the~~The present invention may relate to ~~is the~~ pneumatic tire for a motorcycle ~~according to claim 1 or 2, characterized in that~~ in which an amplitude of the zigzag shape of the zigzag circumferential direction groove is within a range of 50 to 100% of a road-contact width of a tire when the tire is attached to a standard rim, is filled with a standard air pressure, and

AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. Appln. No. 10/501,324

receives a standard load in a state of a camber angle 0° , and a $1/2$ wavelength of the zigzag shape of the zigzag circumferential direction groove is within a range of 50 to 150% of a road-contact length of the tire when the tire is attached to the standard rim, is filled with the standard air pressure, and receives the standard load in the state of the camber angle 0° .

Please replace the first full paragraph of page 10 with the following amended paragraph:

Next, an operation and an effect of the pneumatic tire for such a motorcycle according to ~~claim 3~~ will be explained.

Please replace the paragraph bridging pages 10 and 11 with the following amended paragraph:

~~Claim 4 of the~~ The present invention may relate to a ~~is the~~ pneumatic tire for a motorcycle according to ~~any one of claims 1 to 3, characterized in that~~ in which the sharp inclining groove portion forming the first longitudinal land portion inclines in the same direction as the side of the zigzag circumferential direction groove that faces the sharp inclining groove portion, the sharp inclining groove portion forming the second longitudinal land portion inclines in an inverse direction to the side of the zigzag circumferential direction groove that faces the sharp inclining groove portion, and a length in a tire circumferential direction of the second longitudinal land portion is shorter than that of the first longitudinal land portion.

Please replace the first full paragraph of page 11 with the following amended paragraph:

Next, an operation and an effect of the pneumatic tire for such a motorcycle according to ~~claim 4~~ will be explained.

Please replace the first full paragraph of page 12 with the following amended paragraph:

~~Claim 5 of the~~ The present invention may relate to a ~~is the~~ pneumatic tire for a motorcycle in which according to ~~any one of claims 1 to 4, characterized in that~~ end portions at a tire

AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. Appln. No. 10/501,324

equatorial plane side of one inclining groove and the other inclining groove of the pair of the inclining grooves are may be positioned so as to have a phase difference in the tire circumferential direction with the tire equatorial plane interposed therebetween, and a phase difference of one pair of the inclining grooves and a phase difference of another pair of the inclining grooves adjacent to each other in the tire circumferential direction may be set in directions opposite to each other.

Please replace the second full paragraph of page 12 with the following amended paragraph:

Next, an operation and an effect of the pneumatic tire for such a motorcycle ~~according to claim 5~~ will be explained.

Please replace the third full paragraph of page 12 with the following amended paragraph:

In ~~this~~ the pneumatic tire for a motorcycle ~~according to claim 5~~, as compared to a case in which end portions of the inclining grooves at the tire equatorial plane side are arranged with the same phase difference, occurrences of changes in a negative rate due to a rolling in a road-contact region can be suppressed.

Please replace the fourth full paragraph of page 12 with the following amended paragraph:

~~Claim 6 of the~~ The present invention may relate to is the a pneumatic tire for a motorcycle ~~according to any one of claims 1 to 5, characterized in that in which~~ one auxiliary inclining groove or two, which are extended from the tread end to the tire equatorial plane side to terminate near a boundary between the tread central region and the tread side region, and which are substantially in parallel to the inclining grooves adjacent to each other in the tire circumferential direction, are provided between the inclining grooves in the tire circumferential direction.

AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. Appln. No. 10/501,324

Please replace the fifth full paragraph of page 12 with the following amended paragraph:

Next, an operation and an effect of the pneumatic tire for such a motorcycle ~~according to claim 6~~ will be explained.

Please replace paragraph bridging page 12 and 13 with the following amended paragraph:

In ~~this~~ the pneumatic tire for a motorcycle ~~according to claim 6~~, due to an existence of the auxiliary inclining grooves, drainage performance can be secured at the time of a large camber angle.

Please replace the first full paragraph of page 13 with the following amended paragraph:

~~Claim 7 of the~~ The present invention may relate to a pneumatic tire for a motorcycle ~~according to claim 6, characterized in that in which~~ the auxiliary inclining grooves are positioned between the inclining grooves in the tire circumferential direction such that a groove distance between the grooves in the tire circumferential direction is kept constant.

Please replace the second full paragraph of page 13 with the following amended paragraph:

Next, an operation and an effect of the pneumatic tire for such a motorcycle ~~according to claim 7~~ will be explained.

Please replace the third full paragraph of page 13 with the following amended paragraph:

In ~~this~~ the pneumatic tire for a motorcycle ~~according to claim 7~~, since auxiliary inclining grooves are arranged between the inclining grooves in a tire circumferential direction such that a groove distance between the grooves in a tire circumferential direction is kept constant, rigidities of the land portions can be made uniform.

Please replace the fourth full paragraph of page 13 with the following amended paragraph:

~~Claim 8 of the~~ The present invention may relate to ~~is the~~ pneumatic tire for a motorcycle according to ~~any one of claims 1 to 7, characterized in that~~ in which a width of the central continuous circumferential rib is within a range of 20 to 50% of a road-contact width of a tire when the tire is attached to a standard rim, is filled with a standard air pressure, and receives a standard load in a state of a camber angle 0°.

Please replace the fifth full paragraph of page 13 with the following amended paragraph:

Next, an operation and an effect of the pneumatic tire for such a motorcycle according to ~~claim 8~~ will be explained.

Please replace the second full paragraph of page 14 with the following amended paragraph:

~~Claim 9 of the~~ The pneumatic tire for a motorcycle may include ~~according to any one of claims 1 to 8, characterized in that~~ an angle of the loose inclining groove portion to be measured from the tire rotational direction side to an external side in the tire axial direction with respect to the tire circumferential direction that is within a range of 90 to 150 degrees.

Please replace the third full paragraph of page 14 with the following amended paragraph:

Next, an operation and an effect of the pneumatic tire for such a motorcycle according to ~~claim 9~~ will be explained.

Please replace the first full paragraph of page 15 with the following amended paragraph:

~~Claim 10 of the~~ The present invention may relate to ~~is the~~ pneumatic tire for a motorcycle according to ~~any one of claims 1 to 9, characterized in that~~ in which minimum widths of the respective land portions defined by grooves are substantially the same.

AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. Appln. No. 10/501,324

Please replace the second full paragraph of page 15 with the following amended paragraph:

Next, an operation and an effect of the pneumatic tire for such a motorcycle ~~according to claim 10~~ will be explained.

Please replace the third full paragraph of page 15 with the following amended paragraph:

In the ~~this~~ pneumatic tire for a motorcycle ~~according to claim 10~~, minimum widths between the respective land portions defined by grooves are substantially the same, whereby rigidities of the land portions can be made uniform.

Please replace the fourth full paragraph of page 15 with the following amended paragraph:

~~Claim 11 of the~~ The present invention is may relate to a pneumatic tire for a motorcycle ~~according to any one of claims 1 to 10, characterized in that in which~~ the sharp inclining groove portion and the loose inclining groove portion are smoothly connected to each other.

Please replace the fifth full paragraph of page 15 with the following amended paragraph:

Next, an operation and an effect of the pneumatic tire for such a motorcycle ~~according to claim 11~~ will be explained.

Please replace the seventh full paragraph of page 15 with the following amended paragraph:

~~Claim 12 of the~~ The present invention may relate to a pneumatic tire for a motorcycle ~~according to any one of claims 1 to 11, characterized in that in which~~ the entire length of the inclining groove forming the first longitudinal land portion is longer, by 5 to 20%, than that of the inclining groove forming the second longitudinal land portion.

AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. Appln. No. 10/501,324

Please replace the first full paragraph of page 16 with the following amended paragraph:

Next, an operation and an effect of the pneumatic tire for such a motorcycle ~~according to claim 12~~ will be explained.

Please replace the third full paragraph of page 16 with the following amended paragraph:

~~Claim 13 of the~~The present invention may relate to ~~is the~~ pneumatic tire for a motorcycle ~~according to any one of claims 1 to 12, in which~~ grooves, except for the zigzag circumferential direction grooves, have substantially the same width which is within a range of 60 to 80% of a groove width of the zigzag circumferential direction groove.

Please replace the fourth full paragraph of page 16 with the following amended paragraph:

Next, an operation and an effect of the pneumatic tire for such a motorcycle ~~according to claim 13~~ will be explained.

Please replace the paragraph bridging pages 16 and 17 with the following amended paragraph:

~~Claim 14 of the~~The present invention may relate to ~~is the~~ pneumatic tire for a motorcycle ~~according to any one of claims 1 to 13, characterized in that~~ in which a circumferential direction pitch length between grooves at the tread end is within a range of 20 to 50% of a road-contact length of a tire when the tire is attached to a standard rim, is filled with a standard air pressure, and receives a standard load in a state of a camber angle 0°.

Please replace the first full paragraph of page 17 with the following amended paragraph:

Next, an operation and an effect of the pneumatic tire for such a motorcycle ~~according to claim 14~~ will be explained.

AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. Appln. No. 10/501,324

Please replace the fourth full paragraph of page 17 with the following amended paragraph:

~~Claim 15 of the~~ The present invention may relate to ~~ais the~~ pneumatic tire for a motorcycle according to ~~any one of claims 1 to 14, characterized in that~~ in which a width of an end portion at the tire rotational direction side of the first longitudinal land portion and that of the second longitudinal land portion are within a range of 50 to 120% of a width of the central continuous circumferential rib.

Please replace the fifth full paragraph of page 17 with the following amended paragraph:

Next, an operation and an effect of the pneumatic tire for such a motorcycle according to ~~claim 15~~ will be explained.

Please replace the second full paragraph of page 18 with the following amended paragraph:

~~Claim 16 of the~~ The present invention may relate to ~~ais the~~ pneumatic tire for a motorcycle according to ~~any one of claims 1 to 15, characterized in that~~ in which an amplitude of the zigzag shape of the zigzag circumferential direction groove is within a range of 30 to 150% of a width of the central continuous circumferential rib.

Please replace the third full paragraph of page 18 with the following amended paragraph:

Next, an operation and an effect of the pneumatic tire for such a motorcycle according to ~~claim 16~~ will be explained.

Please replace the first full paragraph of page 19 with the following amended paragraph:

~~Claim 17 of the~~ The present invention may relate to ~~ais the~~ pneumatic tire for a motorcycle according to ~~any one of claims 1 to 16, characterized in that~~ in which TH/SW is within a range of 0.25 to 0.45, given that a drop height measured in a tire radial direction between a tread maximum radial portion to a tire maximum width portion is TH, and a tire

AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. Appln. No. 10/501,324

maximum width is SW, a road-contact length of a tire is within a range of 200 to 250% of a road-contact width when the tire is attached to a standard rim, is filled with a standard air pressure, and receives a standard load in a state of a camber angle 0°, and a road-contact shape is formed into a substantially ellipse configuration whose long axis is oriented in a tire circumferential direction.

Please replace the second full paragraph of page 19 with the following amended paragraph:

Next, operations and effect of the pneumatic tire for such a motorcycle according to ~~claim 17~~ will be explained.

Please replace the fourth full paragraph of page 20 with the following amended paragraph:

~~Claim 18 of the present invention is the~~The present invention may relate to a pneumatic tire for a motorcycle according to ~~any one of claims 1 to 17, characterized in that~~in which a negative rate is within a range of 30 to 40% in a region within a range 50% of a tread periphery width with the tire equatorial plane of the tread as a center, and a negative rate is within a range of 20 to 30% in a region at an external side in the tire transverse direction, with respect to the region within a range of 50% of the tread periphery width with the tire equatorial plane of the tread as a center.

Please replace the fifth full paragraph of page 20 with the following amended paragraph:

Next, an operation and an effect of the pneumatic tire for such a motorcycle according to ~~claim 18~~ will be explained.

Please replace the third full paragraph of page 21 with the following amended paragraph:

~~Claim 19 of the present invention is the~~The present invention may relate to a pneumatic tire for a motorcycle according to ~~any one of claims 1 to 18, characterized in that~~in which an

AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. Appln. No. 10/501,324

outer contour flatness in the tread central region is within a range of 0.4 to 0.7, and that in each of the tread side regions is within a range of 0.2 to 0.7, given that a tread crown radius/a tire maximum width is the outer contour flatness in the tread region within a range of 30 to 50% of a tread periphery width with a tire equatorial plane as a center is a tread central region, and regions at an external side in the tire transverse direction of the tread central region are respectively tread side regions.

Please replace the fourth full paragraph of page 21 with the following amended paragraph:

Next, an operation and an effect of the pneumatic tire for such a motorcycle ~~according to claim 19~~ will be explained.

Please replace the fifth full paragraph of page 22 with the following amended paragraph:

~~Claim 20 of the present invention is the~~ The present invention may relate to a pneumatic tire for a motorcycle ~~according to any one of claims 1 to 19, characterized in that in which an~~ angle of a groove wall at a groove stamping side of the inclining groove with respect to a normal line stood vertically on a road surface is within a range of 0 to 45°, and an angle of a groove wall at a groove kick-out side thereof with respect to the normal line stood vertically on the road surface is within a range of 0 to 45°, and the angle of the groove wall at the groove stamping side is smaller than that at the groove kick-out side.

Please replace the sixth full paragraph of page 22 with the following amended paragraph:

Next, operations and effects of the pneumatic tire for such a motorcycle ~~according to claim 20~~ will be explained.

AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. Appln. No. 10/501,324

Please replace the paragraph bridging pages 23 and 24 with the following amended paragraph:

In ~~the~~this pneumatic tire for a motorcycle ~~according to claim 20~~, since an angle of a groove wall at a groove stamping side of the inclined groove is made smaller than that at a groove kick-out side thereof, an edge portion of the groove wall at the groove-stamping side becomes sharper thus making it easier to tear water film and obtain larger traction force during a travelling of a motorcycle on a wet road surface.

Please replace the first full paragraph of page 24 with the following amended paragraph:

~~Claim 21 of the present invention is the~~The present invention may relate to a pneumatic tire for a motorcycle ~~according to any one of claims 1 to 20, characterized in that~~in which the respective groove depths are substantially the same in a region within a range of 50% of a tread periphery width as tire equatorial plane of the tread as a center.

Please replace the second full paragraph of page 23 with the following amended paragraph:

Next, an operation and an effect of the pneumatic tire for such a motorcycle ~~according to claim 21~~ will be explained.

Please replace the fourth full paragraph of page 23 with the following amended paragraph:

~~Claim 22 of the present invention is the~~The present invention may relate to a pneumatic tire for a motorcycle ~~according to any one of claims 1 to 21, characterized in that~~in which the tire has a radial structure.

Please replace the fifth full paragraph of page 23 with the following amended paragraph:

Next, an operation and an effect of the pneumatic tire for such a motorcycle ~~according to claim 22~~ will be explained.

AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. Appln. No. 10/501,324

Please delete Table 1 on pages 48 and 49. Please add new Table 1 on pages 48 and 49 as follows:

Table 1

	Example	Conventional Example	Comparative Example 1	Comparative Example 2	Comparative Example 3
Inclining groove angle (degree) at the tread central region	9	None	18	10	28
Amplitude of circumferential direction groove/road-contact width (%)	80	×	×	×	×
1/2 wavelength of circumferential direction groove/road-contact length (%)	90	amplitude 9 wavelength ∞	no circumferential direction groove	amplitude 0 wavelength ∞	amplitude 9 wavelength ∞
Width, length and the like of the first longitudinal land portion and the second longitudinal land portion	○	×	×	×	×
Phase difference or the like of a pair of inclining grooves	○	×	×	×	×
Sub-inclining groove	○	×	○	○	○
Phase difference or the like of a pair of inclining grooves	○	×	×	×	×
Width of central continuous circumferential rib (%)	27	×	×	29	29
Angle of loose inclining groove	110	×	125	115	110
Minimum width of longitudinal land portion	○	×	○	○	○
Sharp inclining groove and loose inclining groove are smoothly connected	○	×	○	○	○
Difference between entire length of inclining groove forming first land portion and inclining groove forming second land portion (%)	13	×	○	○	○
Groove width compared with width of	70	×	×	73	×

AMENDMENT UNDER 37 C.F.R. § 1.111

U.S. Appln. No. 10/501,324

circumferential grooves (%)					
Circumferential pitch length between grooves at tread end compared with road contact length of tire (%)	30	×	25	24	11
Width of end portion in tire rotational direction side of first and second longitudinal land portions compared with width of central circumferential rib (%)	95	×	×	88	88
Amplitude of zigzag circumferential direction groove (%)	295	× amplitude 0 wavelength ∞	× no circum- ferential direction groove	× amplitude 0 wavelength ∞	× amplitude 0 wavelength ∞
TH/SW	0.314 215	0.314 215	0.314 215	0.314 215	0.314 215
Negative rate at the tread central region	35	45	35	35	33
Negative rate at the tread side region	25	40	29	25	30
Flatness at the tread central region	0.64	0.64	0.64	0.64	0.64
Flatness at the tread side region	0.36	0.36	0.36	0.36	0.36
Angle (degree) at the stamping side groove wall	10	10	10	10	10
Angle (degree) at the kick-out side groove wall	20	20	20	20	20
Groove depth	○	×	○	○	○
Evaluation of braking	⊙⊙	○	×	Δ	⊙
Evaluation of cornering	⊙⊙	○	Δ	×	○
Evaluation of traction	⊙⊙	○	⊙⊙⊙	×	⊙⊙
Evaluation of durability (confirmation by worn surface)	⊙⊙	×	not evaluated	not evaluated	not evaluated